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(71) Applicant: **SUN MICROSYSTEMS, INC.**
2500 Garcia Avenue
Mountain View,
California 94043-1100 (US)

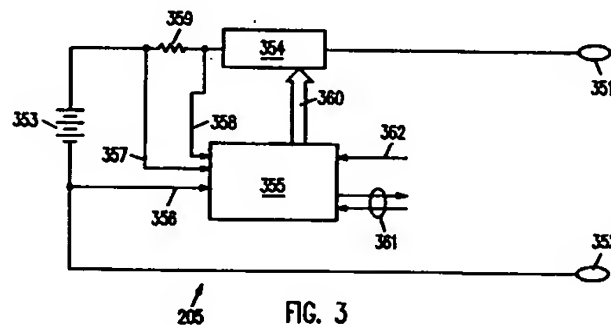
(72) Inventor: **Piercey, Lawrence E.**
1061 Wallace Drive,
San Jose
California 95120 (US)

(74) Representative: **Sparing - Röhl - Henseler**
Patentanwälte
Rethelstrasse 123
D-40237 Düsseldorf (DE)

(54) Smart battery system and interface.

(57) A battery system includes intelligence to allow the battery system to control various aspects of the charging and discharging of the battery, as well as to constantly monitor the battery voltage, temperature, current charge/discharge rate, and remaining capacity of the battery. The intelligent battery system is capable of being charged from a simple voltage supply, with all aspects of charge/discharge rate control and monitoring being accomplished as a function of the intelligent battery system itself, rather than as part of an external charging circuit, or an external electronic device to be powered by the intelligent battery system. This alleviates the need

for external systems to include such circuitry and control elements and allows, if desired, a variety of intelligent battery systems to be developed for use with a given electronic system or family of electronic systems, with each battery being able to control its own charge/discharge rates and monitoring functions. The intelligent battery system is capable of communicating with an external device such as a computer powered by the intelligent battery system, in order to provide an indication of the charge/discharge rate, the state of the battery charge, and the like.



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EUROPEAN SEARCH REPORT

Application Number
EP 95 10 1200

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
P,Y	EP-A-0 621 649 (SONY)	1-11, 26-34, 45-57	H02J7/10 G01R31/36
P,A	* page 4, line 38 - page 5, line 20; figures 2-8 *	13-19, 23-25, 35-40, 59-65	
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	* page 4, line 7 - page 13, line 44; figures 1-5 *		
A	WO-A-90 02432 (FAIRGRIEVE)	1-10, 14-19, 23-34, 36-40, 43-56, 60-65, 69-71	
	* page 5, line 1 - page 11, line 13; figures 1-9 *		TECHNICAL FIELDS SEARCHED (Int.Cl.6)
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A	EP-A-0 480 648 (COMPAQ COMPUTER CO.)	1,9-19, 26, 34-40, 47,55-65	
	* column 2, line 19 - column 12, line 9; figures 1-3 *		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 12 July 1995	Examiner Calarasanu, P
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons * : member of the same patent family, corresponding document	



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EUROPEAN SEARCH REPORT

Application Number
EP 95 10 1200

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL. 6)
A	EP-A-0 458 232 (ABB) * column 2, line 4 - column 4, line 18; figures 1,2 * ---	1,3-5,8, 17, 23-26, 28-30, 33, 44-47, 49-51, 54,63, 69-71	
A	WO-A-91 16753 (MOTOROLA) * page 5, line 5 - page 18, line 28; figures 1-4 * ---	1,5, 9-14, 20-26, 30, 34-36, 41-47, 51, 55-60, 66-71	TECHNICAL FIELDS SEARCHED (Int. CL. 6)
A	EP-A-0 546 872 (TEXAS INSTRUMENTS FRANCE) * page 2, line 50 - page 11, line 31; figures 1-6 * -----	1,5-10, 13-24, 26, 30-45, 47, 51-56, 59-70	
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